TECHNICAL MEMORANDUM

June 18, 2001

To: Mr. Stan Komperda, Project Manager
Illinois Environmental Protection Agency

From: Mr. Sasa Jazic, Project Engineer
Parsons Engineering Science, Inc.

Subject: Update of Fieldwork Activities
June 11 through June 15, 2001
Lockformer Facility
Lisle, Illinois

Parsons Engineering Science, Inc. (Parsons) has prepared the following memo to provide a summary of fieldwork activities completed from June 11 through June 15, 2001, at the Lockformer site in Lisle, Illinois. Parsons performed oversight for work conducted by Clayton Environmental Group, Inc. (Clayton) personnel during field activities. These activities included water sampling from the deep monitoring wells screened within the underlying dolomitic bedrock and sampling from the shallow monitoring wells screened within the overlying till. In addition to the sampling Clayton performed dual packer testing on the deep bedrock wells. Clayton had two crews onsite, one to perform sampling from the shallow monitoring wells and another to perform packer testing and sampling from the deep monitoring wells. Parsons personnel assigned to the oversight team during this period of field activity included Ms. Karen Carlisle, Mr. Chris Athanassopoulos and Mr. Drew McGowan. The following sections provide a synopsis of activities completed during this stage of the fieldwork for this project. Select photographs are included as Attachment A.

June 11 through June 15, 2001

On June 11, 2001, Clayton collected water samples from MW-1101S and MW-1100S for Contaminants of Interest, (COI) analysis: Ethene/Ethane, Nitrate, Chemical Oxygen Demand (COD), Chlorides, Sulfate, Total Organic Carbon (TOC), Sulfide, Metals (Manganese, Iron), as listed in the workplan. Samples were collected after a minimum of 3 well volumes were purged and temperature, pH and conductivity readings stabilized. Clayton purged 210 gallons from MW-1108S, a well that had not been developed after installation. A second field crew from Clayton began dual packer testing at MW-1102D. An eight channel Hermit 3000 data logger with four pressure transducers was used to record changes in static water level above and below the packer as well as in MW-1101D and MW-1103D. The packer placement will be specific to each test based on Claytons analysis of the downhole video logs collected the week before. Before the test began Clayton manually raised the transducers a measured height in MW-1101D and MW-1103D to verify the Hermit data logger was operating correctly. Hermit test #1 began before the submersable Grunfos purge pump was activated to ensure any changes in water level related to purging would be recorded. Packer test #1 was purged at an average rate of 3-4 gal/min. Clayton purged 310 gallons from the first packer test, SPT-1, without a change in static water levels beyond the accuracy of the transducers. The Grunfos pump was removed and a

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bladder pump was lowered into the well for sample collection. Samples were collected after temperature, pH and conductivity readings stabilized. Clayton collected a water sample for VOC analysis, Sample ID# MW-1102-SPT-1. Parsons collected a split sample for VOC analysis, Sample ID# MW-1102D.

On June 12, 2001, Clayton collected water samples from MW-1108S, MW-513 and MW-508D for COI analysis. Clayton followed the same sampling procedure for shallow monitoring wells outlined above in the June 11, 2001 report. The second Clayton field crew continued performing packer tests on MW-1102D. The packer tests and corresponding hermit tests followed the same procedure outlined above in the June 11, 2001 report. During the second packer test at MW-1102D the hermit lost power for no apparent reason. Clayton personnel verified that data was not lost and hermit test #3, the second hermit test for that interval, began for the remainder of the purging process at MW-1102D. Clayton performed Packer test #3 and the corresponding hermit test, #4, at MW-1102D before the day was over. Water samples were collected from packer test #2 and #3 for VOC analysis.

On June 13, 2001, Clayton collected a water sample from MW-504D following the same sampling procedure for shallow bedrock wells described above in the June 11, 2001 report. Clayton made a failed attempt to sample MW-502S. A sample could not be collected due to slow recharge rates. Clayton decided to let MW-502S recharge overnight and attempt to collect a sample the following morning. The second Clayton field crew continued packer testing at MW-1102D with tests 4, 5 and 6. Packer test 4 followed the same procedure outlined above in the June 11, 2001 report. Clayton collected a water sample from packer test #4 for VOC analysis, sample ID# MW-1102-SPT-4. Packer test #5 was halted when the interval was purged dry after approximately 50 gallons. Clayton withdrew the purge pump and began monitoring water quality parameters with the bladder pump. After stable readings Clayton collected a water sample for VOC analysis, sample ID# MW-1102-SPT-5. Clayton purged 52.5 gallons before sample collection from packer test #5. Packer test #6 was halted when the interval was purged dry after approximately 20 gallons. The procedure from packer test #5 was followed. Water parameters stabilized after 2.5 gallons were purged with the bladder pump. Clayton collected a sample for VOC analysis, sample ID# MW-1102-SPT-6.

On June 14, 2001, Clayton collected water samples from MW-514D and MW-515D following the same sampling procedure for shallow bedrock wells described above in the June 11, 2001 report. A duplicate sample was collected from MW-515D. MW-502S was sampled when stable water parameters were achieved before three well volumes could be purged due to slow recharge. The second Clayton field crew continued packer testing at MW-1102D with tests 7, 8 and 9. Packer tests 7 and 8 followed the same procedure outlined above in the June 11, 2001 report. During packer test 9 the interval was purged dry after the removal of approximately 140 gallons of water. The test was halted to allow the interval to recharge and the bladder pump was inserted to begin monitoring water quality parameters. After stable readings Clayton collected water samples.

On June 15, 2001, Clayton collected water samples from MW-126 and MW-401.

Future Activities

Parsons is continuing to provide oversight services on this project and will provide additional reports on the field activities at the site. The next scheduled fieldwork activities are continued dual packer testing, and groundwater sampling of the shallow and deep bedrock wells.

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